



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/621,478

07/17/2003

James Gary Pruett

HTI.P.8213

2526

23575

7590

02/12/2007

CURATOLO SIDOTI CO., LPA

24500 CENTER RIDGE ROAD, SUITE 280

CLEVELAND, OH 44145

EXAMINER

COLE, ELIZABETH M

ART UNIT

PAPER NUMBER

1771

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

02/12/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/621,478

Applicant(s)

PRUETT ET AL.

Examiner

Elizabeth M. Cole

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) 1-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 42-52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____                                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____   | 6) <input type="checkbox"/> Other: ____                           |

Art Unit: 1771

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 42-52 are rejected under 35 U.S.C. 103(a) as obvious over Wilson et al, U.S. Patent No. 6,155,432 in view of Wilson et al, U.S. Patent No. 6,264,045. Wilson '432 discloses a structure comprising a substrate which comprises inorganic fibers and inorganic fiber whiskers. The inorganic fibers can comprise carbon fibers including those derived PAN, pitch or rayon precursor, ceramic fibers such as silicon carbide, silicon nitride, aluminosilicates and others. The inorganic fiber whiskers can comprise alumina, carbon, silica, glass silicon carbide, silicon nitride, titanium nitride and mixtures thereof. See col. 5, lines 28-42. The filter media can be in the form of paper, felts, needled felts, fabric, flat, shaped or corrugated plates, tubes, cylinder and corrugated or pleated cylinders. See col. 6, lines 11-15. A pyrolytic carbon coating can be formed on the filter media structure. See col. 7, lines 18-22. Wilson et al does not explicitly teach the claimed variation in the mass of the pyrolytic carbon coating. However, Wilson '432 et al does teach forming a thin layer and it is reasonable to presume that the layer would be consistent. Further, when the reference discloses all the limitations of a claim except a property or function, and the examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention the examiner has basis for shifting the burden of proof to applicant as in *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980). See MPEP §§ 2112-

2112.02. Thus, in the instant case, the burden is shifted to applicant to show that the material of Wilson '432 does not meet the claimed limitation regarding the variation in mass of the coating. Wilson '432 differs from the claimed invention because Wilson '432 does not teach wrapping the material on itself. Wilson '045 teaches at col. 6, lines 22-65 that filter materials comprising substrates comprising inorganic fibers and inorganic whiskers can be formed into any desired shape by wrapping or winding the substrate around mandrels. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the filter of Wilson '432 into any desired shape including those in which the material is wound or wrapped around a mandrel, motivated by the teaching of Wilson '045 that such shapes are useful and desirable shapes for filters comprising inorganic whisker and inorganic fibers.

3. Applicant's arguments filed 11/27/06 have been fully considered but they are not persuasive. Applicant argues that US '432 as modified by US '045 does not teach a composite material that is wound over itself to form a continuous composite roll composite material product. Applicant argues that the disclosure at col. 6, lines 22-65 distinguishes the claimed continuous roll composite material from the claimed invention because US '045 teaches either the fiber reinforcement or a pre-preg is wound on the roll, not the densified material comprising the fiber reinforcement and the pyrocarbon addition. However, the US '045 reference is not relied on for showing the pyrocarbon addition since US '432 already teaches this element of the invention. US '432 differs from the claimed invention in that it does not disclose the material can be formed into a roll which is wound over itself. US '045 teaches this limitation and since both references

Art Unit: 1771

are drawn to filter materials comprising inorganic fibers and inorganic whiskers, the person of ordinary skill in the art would have been motivated to have formed the material of US '432 into the claimed shape. Since US '045 teaches wrapping or winding around the mandrel and teaches that the layers are stacked, it teaches wrapping around itself.

4. Applicant also argues that in US '045 the resin impregnated carbon fibers are autoclaved or press molded into the desired shapes and do not constitute multi layer roll products that can be unwound. However, the while it is true that the material of US '045 does not appear to be able to be unrolled, this limitation is not found in the claims.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (571)

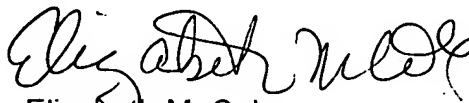
Art Unit: 1771

272-1475. The examiner may be reached between 6:30 AM and 6:00 PM Monday through Wednesday, and 6:30 AM and 2 PM on Thursday.

Mr. Terrel Morris, the examiner's supervisor, may be reached at (571) 272-1478.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The fax number for all official faxes is (571) 273-8300.



Elizabeth M. Cole  
Primary Examiner  
Art Unit 1771

e.m.c